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Review of the Health Systems Research Initiative

Executive summary

Technopolis Ltd was commissioned to conduct an independent, external review of the Health Systems Research Initiative (HSRI) by its funders (UK Foreign, Commonwealth and Development Office [FCDO], the Medical Research Council [MRC], the Economic and Social Research Council [ESRC] and the Wellcome Trust). The aim was to understand the impact of the programme, its potential for future impact, and inform the design of future funding programmes. The review covered awards made in Calls 1-6 of the HSRI (2014 to 2019) and was carried out between July 2020 and April 2021. This executive summary lays out the main findings from the review and the study team's recommendations for future funding calls.

The study team employed a mix-methods approach, including both qualitative and quantitative methods, which included analysis of the portfolio, funding landscape, Researchfish® data, surveys (of principal investigators [PIs], co-investigators [co-Is] and unsuccessful applicants), interviews (PIs and project partners, HSRI funders, international funders, funding committee members, and health policy and systems research [HPSR] experts) and impact case studies.

1.1   Introduction

The Health Systems Research Initiative (HSRI) was established in 2013 as a joint funding programme from the UK Department for International Development (now Foreign, Commonwealth and Development Office), the Medical Research Council (MRC), the Economic and Social Research Council (ESRC) and the Wellcome Trust. The funders have committed a total of £39.7 million towards the HSRI so far.

The overall aim of the programme is to generate world class and cutting-edge research that addresses key questions on strengthening and improving health systems in low- and middle-income countries (LMICs). As such, its objective is to fund methodologically rigorous, high quality research that will:

- Generate evidence on how to strengthen health systems in LMICs

- Use a health systems approach to inform the delivery of evidence-based interventions or health system reforms

- Provide evidence that is of direct relevance to decision makers and practitioners in the field

- Engender capacity development in health policy and systems research (HPSR) amongst both research users and producers of evidence

The programme accommodates two types of proposals.

1. Foundation grants for 1-2 years with budgets usually up to £200k. The purpose of these is to lay the foundations for more substantial research studies, particularly to assist interdisciplinary teams develop robust, competitive proposals, or for exploratory research[1]

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[1] The scope was less exploratory in the initial calls, instead focussing on exploring innovations or approaches that have potential for further development and represent practical solutions for strengthening health systems. Recent calls have been worded to allow more exploratory research to encourage more social science.

2. Full scale research projects for 3-5 years duration

1.2   The HSRI portfolio

A total of 92 grants have been made as part of Calls 1 – 6 of the HSRI, representing an investment of £31.8m. 35 of these awards were for full grants, with a budget of £23.3m, and 57 were foundation grants, with a budget of £8.6m. 9 full and 31 foundation grants have closed, with the rest still active.

Seventy-nine PIs across 43 institutions received grants, of which 20 were LMIC institutions[2]. The London School of Hygiene and Tropical Medicine received more grants than any other organisation (27%, 25 of 92 grants). Among LMIC institutions, Strathmore University (Kenya), the University of Cape Town (South Africa) and the African Research Collaboration for Health-KEMRI Wellcome Trust Research Programme (ARCH-KWTRP, Kenya) won 3 grants each.

Of the 79 PIs, 43 (54%) were women, leading 54 of the 92 HSRI grants (59%).

The research locations were spread across 42 countries. The majority of projects concerned Africa (60%, 55 awards). Fewer awards focused on Asia (35%, 32) and Central/South America (11%, 10). The Sub-Saharan countries Kenya (17%, 16 awards), South Africa (14%, 13) and Uganda (12%, 11) accounted for the most awards. About one-fourth of projects were multi-country involving between two to seven countries (24%, 22 of 92), with 8% (7) involving more than one continent – usually Africa and Asia (5 of 7).

An analysis of the HRCS Research Activity codes[3] revealed that the most common research activity codes were 8.1 Organisation and delivery of services (75%, 56 of 75 grants), followed by 8.3 Policy ethics and research governance (27%, 20) and 8.2 Health and welfare economics (13%, 10). Similar findings were obtained in the PI survey, where 70% (19 of 27) of respondents cited service delivery as a focus of their project, followed by health workforce (44%, 12) and leadership / governance (37%, 10).

1.3   Project implementation

1.3.1   Stakeholder engagement

PIs (in survey and interviews) reported engaging with different types of stakeholders ranging from local, regional and national policy makers to international organisations (e.g. WHO, World Bank, etc.), health care organisations, practitioners, and communities during the design, implementation and dissemination phases. Engagement in the design phase was overall to a lesser extent compared to engagement during the implementation phase.

During project design, PIs most frequently engaged with national government policy makers (67%, 18 of 27). During implementation, stakeholder engagement included national as well as local government policy makers (77% and 73% of projects respectively), LMIC health care organisations (62%) and community organisations or representatives (54%).

The mode of engagement was typically a direct approach (one-to-one) or interactive workshops/feedback sessions. Stakeholders were often represented in project advisory boards with engagement happening through regular meetings, for example, every six months.

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[2] The London School of Hygiene and Tropical Medicine was counted as a UK-based institution regardless of where the PI or their unit are based.

[3] HRCS coding was not available for grants awarded during Call 6 (10 Foundation and 7 Full). Values include double counting for grants with more than one HRCS code.

1.3.2   Challenges and changes

Many of the projects were affected by COVID-19 pandemic-related issues and delays. The next most commonly reported challenges were administrative or technical challenges, where administrative challenges concerned contracting, collaboration agreements and payments. A small number of projects encountered challenges related to political issues, working with communities, limited availability or transfer of policy makers participating in the project, quality of data, and collaborating with new LMIC partners.

In light of the aforementioned challenges, project plans had to be adjusted, usually in the form of study timeline changes and no-cost extensions to accommodate delays in field work. In some cases, changes were made to the data collection methods and project staff training, for example in the case of Covid, to allow a shift to online/remote data collection methods and engagement.

1.4   Outputs, outcomes and impact

1.4.1   Outputs

- In Researchfish®, grants reporting publications (n=46), reported means of 6.2 publications per grant and 4.8 journal articles per grant. However, across all grants reported in Researchfish® (n=75), the mean drops down to 3.8 publications per grant since many active grants have not published yet.

- New tools, methodologies and products have been reported including

    – Databases/data collections e.g. linked datasets such as routinely collected patient data from heath facilities linked with HIV cohort data, database architecture such as the National Archive for Ebola-related data in Sierra Leone

    – Data collection tools and guides e.g. survey questionnaires, systematic review protocols, a participatory policy analysis workshop guide, a tool to measure patient satisfaction and a paper-based tool for evaluating structural components of staffing infrastructure and equipment

    – Training material such as training courses for health advocates and a training manual for deploying a survey instrument

    – Novel methodologies e.g. new method using patients as tracers to understand the way health systems are structured (involving a combination of laboratory records, folder review, facility interviews and geographic-information systems to track patients); a method for assessing clinics' preparedness for implementing mental health interventions; novel statistical approaches; and remote qualitative data collection methods, including WhatsApp interviews and Zoom focus groups

    – Intervention products (mainly health and social care service products), creative products (films, videos, or animations), and intellectual property (a licensed innovation that extracts digital information from paper-based records and an application that standardises flow of village doctor follow-up visits in China)

- Capacity development of HIC and LMIC researchers and research institutions / organisations as well as LMIC stakeholders (policy makers, practitioners and community representatives) occurred within HSRI projects. In terms of research capacity building, improved knowledge and technical skills was the most significant capacity building outcome in both LMICs and HICs. Improved research leadership, research management and administrative skills, community engagement and knowledge transfer skills and organisational / institutional capacity were observed more readily in LMICs.

According to PIs and co-Is, LMIC stakeholders' knowledge of the nature and value of health systems research had increased at least to some extent. Policy makers and practitioners are also increasingly seeking evidence from researchers or considering existing research evidence for decision making

1.4.2   Outcomes

- There is some limited evidence from the survey that findings or outputs from HSRI-funded projects have been taken up by other researchers

- Thirty-two HSRI awards have leveraged £21.4 million in further funding, with a mean grant size of £274,145 according to Researchfish®. The MRC, ESRC, and Newton Fund have contributed the largest amount of further funding to HSRI grantees. Six additional PIs had acquired further funding by the time of our review from sources such as FCDO, Wellcome Trust, European Union, US National Institutes of Health, ESRC, and Newton Fund.

    Four PIs with foundation grants successfully applied for full grants under HSRI

- The majority of PI survey respondents reported working with new partners in their HSRI funded project. A majority of the PIs also reported that they have collaborated or are collaborating with these new partners outside of the HSRI project. Thus, the HSRI is further supporting the strengthening of new partnerships and networks. Collaborative activities outside the remit of the HSRI project included regular knowledge exchange and interactions and joint development and submission of proposals

- Ten examples of the uptake of research evidence by policy makers and practitioners were also reported in the surveys and interviews. These included informing government policy reports (e.g. mental health care in South Africa), contributing to broader policy discussions (e.g. Indonesian national health insurance scheme, quality in private health facilities in Tanzania)

- Findings from HSRI-funded projects have also informed policy / practice changes in seven cases, for instance, the Bangladesh Ministry of Health and Families National Strategy document, the Vietnamese government's first Decree on the management of medical devices (Decree No. 36/2016/ND-CPD) and draft recommendations for strategic development of neonatal health care services in Kenya

- Policy and practice changes have also been implemented in three cases such as new health system developments for clinical information exchange between providers in India's Kerala State, new health systems strengthening components in the South African Drug-resistant tuberculosis (programme and a new 'rubber-stamp' method that allows paper-based record keeping to be integrated with digitalisation (Kenya)

- In three instances, scale-up was also observed. For example, countries like Uganda, Burkina Faso, Nigeria and the Democratic Republic of Congo are trying to learn from Kenya's experience of implementing smart, risk-based health systems regulation, which is the focus of one HSRI project. A project on the lessons learnt from emergency responses to the Ebola epidemic in Sierra Leone has influenced the international response to the Ebola outbreak in the Democratic Republic of Congo and Sierra Leone's response to COVID-19.

1.4.3   Impacts

- With very few closed full awards (n=9) and a large proportion of active projects, findings for most HSRI projects have not had the chance to be implemented or scaled up. Consequently, impacts on health systems or attributable improvement of lives of people at the population scale have yet to accrue. Nonetheless, there is some evidence of health benefits for study participants. For instance, in an intervention trial in China, up to 650

patients experienced reduction in blood pressure, stroke recurrence, hospitalisation and mortality as well as overall improvements in lifestyle

1.5   Value for money

Delivery of the HSRI through a partnership of funders adds value by reducing duplication of effort, pooling of budgets and pooling of expertise and networks across the funders. It further provides value for money (VfM) by being one of the only funding programmes which specifically funds health policy and systems research (HPSR), and funding high-quality research with strong relevance to LMIC needs and the potential to help UK's efforts to achieve the health-related Sustainable Development Goals.

Moreover, foundation grants offer researchers the option to apply for smaller amounts for funding to do exploratory research or pilot studies, which allows more efficient use of the limited resources available, avoiding excessive research effort and reducing the risk to funders. HSRI projects also contribute evidence on financial interventions or costs of delivering an intervention. By highlighting costs, savings as well as inefficiencies, HSRI findings can ultimately contribute to better use of available funds, and thus VfM for the relevant health systems. HSRI-funded research has also contributed to strengthening HPSR capacity in LMICs and HICs, and leveraging further funding and resources for HPSR enabling continued HPSR activity. Finally, flexible scheme management (e.g. no-cost extensions) contributes to VfM by facilitating completion of projects and subsequent impact.

1.6   HSRI design and implementation

The main strength of the HSRI according to a vast majority of consultees is that it is one of the only funding programmes which is designed around HPSR. The main weakness however is that the overall amount of funding available for the scheme is relatively small resulting in high competition and many high-quality proposals not getting funded.

Specific aspects in the design of the HSRI which make it stand out from other funding schemes include the HSRI's openness to funding exploratory research and a broad range of methodologies; the broad scope, giving researchers flexibility in which research questions they address; and support for capacity building and opportunity for LMIC leadership in projects.

Overall, most consultees are satisfied with the scheme's design and requirements, application process and administration. Some suggestions for improvement included reducing duplication in the application form, particularly in sections discussing impact, and improving feedback for unsuccessful applications.

Current and former funding committee members consulted considered the review process to be fit for purpose, and to "work well". However, they had concerns about diversity, and were particularly interested in enhancing the number of LMIC-led projects and representation of social sciences.

1.7   Conclusions

With regard to the main objectives of the review as articulated in the terms of reference for the study, the main conclusions are as follows.

1. The HSRI is addressing a key opportunity to fill a need in the global health research funding landscape in terms of making funds available to conduct HPSR with relevance to LMICs. In turn, the scheme is funding relevant questions with high-quality applications in competitive funding calls as evidenced by the testimonies of funding committee members. Publications

from HSRI projects are being cited by other researchers, and several have an above average field-weighted citation impact

2. The desired outputs such as publications, databases, training materials, methodological tools and intervention products are being produced from the HSRI projects. Moreover, further funding is being attracted, and new collaborations are being facilitated and existing collaborations are being strengthened. Stakeholder and policy engagement is also occurring across all stages of projects, including in the design and implementation phase.

   There is some evidence of research uptake by policy makers and practitioners as well as of influence or implementation in local as well as wider contexts. Where this has not been achieved, there is potential for implementation, scale-up and downstream impact.

   Evidence of impacts in the form of strengthened LMIC health systems, improved access to health care and health improvements is limited, but it is important to acknowledge that there is a time lag to impact. Individual projects are unlikely to spur systemic change, and it is difficult to find evidence to attribute a policy or system change to one research project.

   Barriers to changes in policy/practice, implementation and scale-up, and thus impact, include inconclusive research findings to inform policy, incomplete evidence base, turnover of engaged policy makers and practitioners and challenging political or economic environment.

   Meaningful engagement and support from stakeholders such as policy makers and practitioners, including embedding these stakeholders in the research (co-creation); timeliness, relevance and robustness of the evidence; and partnership or appointment with national ministry of health or an international organisation are key enablers of policy and practice-related outcomes and downstream impact.

3. Researchfish® provides a valuable platform to monitor outputs, outcome and impacts, but additional work is needed to assess their quality and value. Recording and assessing capacity building in Researchfish® is challenging.

   The Theory of Change and comprehensive indicator framework developed for the initiative in this review can be used as a guide for future monitoring, evaluation and learning.

Overall, the HSRI's objectives are being met. Methodologically rigorous and high-quality HPSR is being funded, leading to growth in the body of evidence on health systems strengthening in LMICs, delivery of evidence-based interventions or health system reforms, evidence relevant for LMIC decision makers and practitioners, and capacity development among both researchers and research users.

1.8 Recommendations

Based on the evidence and opinions gathered throughout the review, the study team has formulated five recommendations.

1. *Funders should continue to fund the HSRI, maintaining its overall design and scope*

   The HSRI is one of very few programmes globally dedicated to HPSR, an under-funded research domain. The broad scope of the initiative which accommodates the entire spectrum of HPSR along with innovative and interdisciplinary approaches is appropriate and allows bottom-up development of ideas relevant to LMIC needs. Most importantly, the dual mechanism of foundation and full grants should be continued in its current form as it appears to facilitate building new research capacity, allows new entrants into HPSR and represents value for money.

2. *Launch strategic discussion on selection criteria and balancing competing priorities during application review*

Feedback from PIs and funding committee members highlights some tensions due to competing priorities for the scheme. For instance, between the aims to support both high quality research and individual / institutional capacity building, and to fund novel research versus the research most likely to have impact.

There is evidence that funding committee members are alert to these tensions and strive to balance the various criteria. However, explicit guidance as to how to address these tensions (e.g. hierarchy of considerations) could support committee members in the short term, and in the longer term, a wider strategic discussion could provide further clarity on the relevant priorities for HSRI.

3. *Explore options to increase diversity of successful applicants*

This review showed that certain institutions, countries and research areas dominate the HSRI portfolio. This could be a reflection of the size of the HPSR community, which is relatively small. For the same reason, it may appear to be a 'closed' community, and more diversity would be desirable in terms of the institutions, countries, research questions, and disciplinary perspectives represented in the award portfolio.

4. *Support stakeholder engagement and networking activities to enable impact*

The review showed that stakeholder engagement in the design and implementation of the award, as well as post-award, is an enabler of relevance, policy influence and health system changes. To maximise the potential for policy and health system outcomes and impacts, the HSRI funders should consider supporting stakeholder engagement activities to promote dissemination of knowledge and HSRI project findings as well as buy-in to the research and/or its findings.

The HSRI could further facilitate impact by supporting networking between HSRI projects and / or applicants. This would support knowledge exchange across research groups, engender synergy and learning in common research areas, and enable development of common messages or policy briefs for dissemination to policy makers.

5. *Undertake wider monitoring activities*

Researchfish® provides information on outputs and outcomes achieved but how activities undertaken contribute to progress made and eventual impact is not clear. Focussed monitoring of progress and outcomes would enable the funders to understand the nature and extent of stakeholder engagement undertaken, the progress made in project implementation and towards outcomes, and the likely potential for impact.

Funders could provide HSRI-specific guidance or exemplars to PIs for filling in Researchfish® to improve the consistency of data entered. Additional HSRI-oriented questions could be included, for example, to better capture capacity building, and health system outcomes and impacts. A short narrative report in the form of an impact case study or end-of-grant report might be useful. These outputs could also be used for dissemination and knowledge exchange purposes by the grantees and funders.